REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Final Official Action dated March 31, 2009. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 4-9, 17, 19, 22-24, 26 and 29-37 are currently pending in this application, wherein claims 4-5 and 8-9 are being amended to more particularly point out and distinctly claim the subject invention, and claims 1-3, 10-16, 18, 20-21, 25 and 27-28 are being canceled without prejudice or disclaimer. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formal Rejection

The Examiner objected to claims 12-13 for informalities. As outlined above, claims 1-3, 10-16, 18, 20-21, 25 and 27-28 are being canceled without prejudice or disclaimer. Consequently, Applicants will submit that the above-noted formal objections are hereby obviated or rendered moot.

Prior Art Rejections

The Examiner rejected claims 1-5, 7-8, 10-11, 25, and 27-28 under 35 U.S.C. §102(b) as being anticipated by Kihara et al. (U.S. Patent No. 6,197,473). The Examiner rejected claims 6, 12-15, and 18 under 35 U.S.C. §103(a) as being unpatentable over Kihara. The above-noted rejections have been carefully considered, but are most respectfully traversed.

Otherwise, the Examiner indicated that claims 17, 19, 22-24, 26, and 29-37 are allowed, and that claim 9 was only objected to for being dependent on a rejected base claim, but would be allowed if amended into independent form.

The present invention as now recited in claim 4 is directed to an electronic device manufacturing method, comprising the steps of: preparing a substrate; forming, on said substrate, a photosensitive organic film having molecules not polymers as a main component for embracing or connecting at least part of acid generation molecules including an acid generation group, including four or more reaction sites which are polarity change reaction groups for controlling solubility with respect to a developer; and transferring a hole pattern or

a gate pattern to said photosensitive organic film, wherein a plurality of said polarity change reaction groups are provided on the periphery of said molecules not polymers and further changed from alkali solubility to alkali non-solubility by acid generated from said acid generation molecules; and wherein said molecules not polymers include, as main constituting elements, at least one of cyclodextrine, calixarane, dendrimer, fullerene, crown ether, androsteron, and silicon monomer-oligomer, or one of the induction elements thereof.

The present invention as recited in claim 9 is directed to an electronic device manufacturing method, comprising the steps of: preparing a substrate; forming, on said substrate, a photosensitive organic film having molecules not polymers as a main component generation group, including four or more reaction sites which are polarity change reaction groups for controlling solubility with respect to a developer; and transferring a hole pattern or a gate pattern to said photosensitive organic film, wherein a plurality of said polarity change reaction groups are provided on the periphery of said molecules not polymers and further changed from alkali non-solubility to alkali solubility by acid generated from said acid generation molecules, and wherein said molecules not polymers include cyclodextrine moiety, fullerene moiety, and polyhedral oligomeric silsesquioxane moiety.

The present invention is directed to solving the problem of edge roughness being present with miniaturization in a chemically amplified resist. In particular, in a cross linking negative resist, suppression of roughness is difficult due to the molecular weight by cross linking and an increase in dispersion thereof can be solved by the negative resist with polarity change reaction (see "Disclosure of the Invention" of the specification).

The present invention is (for example as recited in the amended claim 4) characterized in that "a photosensitive organic film includes four or more reaction sites which are polarity change reaction groups for controlling solubility with respect to a developer" and "includes molecules not polymers as a main component for embracing or connecting at least part of acid generation molecules including an acid generation group" and "a plurality of said polarity change reaction groups are provided on the periphery of said molecules not polymers" and "a plurality of said polarity change reaction groups are changed from alkali solubility to alkali non-solubility by acid generated from said acid generation molecules", and" said molecules not polymers include, as main constituting elements, at least one of cyclodextrine, calixarane, dendrimer, fullerene, crown ether, androsteron, and silicon monomer-oligomer, or one of the induction elements thereof" (see "Best Mode for Carrying out the Invention" in the specification).

The present invention is also characterized (for example as recited in the amended claim 9) in that "a photosensitive organic film includes four or more reaction sites which are polarity change reaction groups for controlling solubility with respect to a developer", "a photosensitive organic film has molecules not polymers as a main component for embracing or connecting at least part of acid generation molecules including an acid generation group", "a plurality of said polarity change reaction groups are provided on the periphery of said molecules not polymers" "a plurality of said polarity change reaction groups are changed from alkali non-solubility to alkali solubility by acid generated from said acid generation molecules" and "said molecules not polymers include cyclodextrine moiety, fullerene moiety, and polyhedral oligomeric silsesquioxane moiety." Applicants have found that this has a low molecular weight, but can enhance the thermal resistance and the resistance for dry etching (referring to Embodiment 1 & 4).

Kihara does not disclose, teach or suggest any structure or operation even remotely similar to those of the present invention as now recited in either claim 4 or claim 9. At best, Kihara discloses concepts such as "molecules not polymer", or "a photosensitive organic film includes four or more reaction sites which are polarity change reaction groups." However, Kihara does not disclose or suggest a negative resist with polarity change reaction. Kihara is directed to enhancing the resolution of resist or that of solubility with respect to a developer. Thus, Kihara cannot by itself either anticipate or render obvious each and every feature of the present invention as now claimed. Even more, Kihara fails to provide any disclosure, teaching or suggestion that would suggest to one of skill in the art how to solve the problem addressed by the present invention, much less how to arrive at a structure or operation that embodies all the features of the present invention.

Applicants will strongly but respectfully contend that

Even considering the standards set forth under the Supreme Court's *KSR* decision, Applicant will contend that the body of prior art teachings presented by Kihara fails to (a) yield predictable results even relevant to the present invention, (b) solve any problem even remotely similar to that addressed by the present invention, or (c) show much less suggest that the present invention embodies a combination that one of ordinary skill in the art would have found "obvious to try" in light of Kihara.

Further, in light of Kihara, Applicants will contend that there is no other evidence that could have been added that would have made Kihara more relevant to the present invention as claimed. In other words, given what would result from Kihara, one of skill in the art would still be unable to achieve the present invention even knowing, among other things, (1)

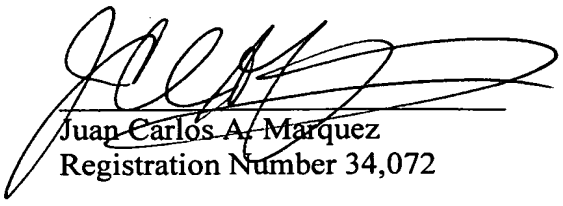
the inventor's training or education in the relevant field; (2) whether the present invention had reasonable expectation of success; (3) whether the invention was a predictable result; (4) whether the invention could have been achieved by mere routine research methodology; (5) any prior art outside of the field of the invention that allegedly solved the same problem as the invention; (6) any general technical principles and concepts found in textbooks , trade literature and other sources that would have been available to one of skill in the art; or (7) any secondary considerations under *Graham*. Consequently, Applicants will contend that the present invention as now recited in claims 4 and 9 is distinguishable and thereby allowable over the prior art of record. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

Respectfully submitted,



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